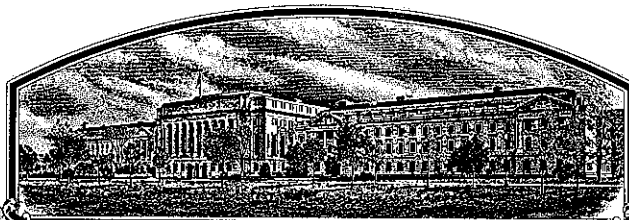


No.

9200030



# THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

## Kentucky Agricultural Experiment Station

Whereas, THERE HAS BEEN PRESENTED TO THE

### Secretary of Agriculture

AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED NOVEL VARIETY OF SEXUALLY REPRODUCED PLANT, THE NAME AND DESCRIPTION OF WHICH ARE CONTAINED IN THE APPLICATION AND EXHIBITS, A COPY OF WHICH IS HEREUNTO ANNEXED AND MADE A PART HEREOF, AND THE VARIOUS REQUIREMENTS OF LAW IN SUCH CASES MADE AND PROVIDED HAVE BEEN COMPLIED WITH, AND THE TITLE THERETO IS, FROM THE RECORDS OF THE PLANT VARIETY PROTECTION OFFICE, IN THE APPLICANT(S) INDICATED IN THE SAID COPY, AND WHEREAS, UPON DUE EXAMINATION MADE, THE SAID APPLICANT(S) IS (ARE) ADJUDGED TO BE ENTITLED TO A CERTIFICATE OF PLANT VARIETY PROTECTION UNDER THE LAW.

NOW, THEREFORE, THIS CERTIFICATE OF PLANT VARIETY PROTECTION IS TO GRANT UNTO THE SAID APPLICANT(S) AND THE SUCCESSORS, HEIRS OR ASSIGNS OF THE SAID APPLICANT(S) FOR THE TERM OF *eighteen* YEARS FROM THE DATE OF THIS GRANT, SUBJECT TO THE PAYMENT OF THE REQUIRED FEES AND PERIODIC REPLENISHMENT OF VIABLE BASIC SEED OF THE VARIETY IN A PUBLIC REPOSITORY AS PROVIDED BY LAW, THE RIGHT TO EXCLUDE OTHERS FROM SELLING THE VARIETY, OR OFFERING IT FOR SALE, OR REPRODUCING IT, OR IMPORTING IT, OR EXPORTING IT, OR USING IT IN PRODUCING A HYBRID OR DIFFERENT VARIETY THEREFROM, TO THE EXTENT PROVIDED BY THE PLANT VARIETY PROTECTION ACT. THE UNITED STATES SEED OF THIS VARIETY (1) SHALL BE SOLD BY VARIETY NAME ONLY AS SEED OF CERTIFIED SEED AND (2) SHALL CONFORM TO THE NUMBER OF GENERATIONS REQUIRED BY THE OWNER OF THE RIGHTS. (84 STAT. 1542, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

WHEAT

'Verne'

In Testimony Whereof, I have hereunto set my hand and caused the seal of the Plant Variety Protection Office to be affixed at the City of Washington, D.C. this 30th day of April in the year of our Lord one thousand nine hundred and ninety-three.

Attest:

*Kenneth A. Evans*  
Commissioner  
Plant Variety Protection Office  
Agricultural Marketing Service

*Mike Long*  
Secretary of Agriculture

U.S. DEPARTMENT OF AGRICULTURE  
AGRICULTURAL MARKETING SERVICE

**APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE**

(Instructions on reverse)

Application is required in order to determine if a plant variety protection certificate is to be issued (7 U.S.C. 2421). Information is held confidential until certificate is issued (7 U.S.C. 2426).

1. NAME OF APPLICANT(S) (as it is to appear on the Certificate)		2. TEMPORARY DESIGNATION OR EXPERIMENTAL NO.	3. VARIETY NAME
Kentucky Agricultural Experiment Station		KY 83-38	Verne
4. ADDRESS (street and no. or R.F.D. no., city, state, and ZIP)		5. PHONE (include area code)	<b>FOR OFFICIAL USE ONLY</b> PVPO NUMBER 9200030 <hr/> F I L I N G Date Dec. 2, 1991 Time <input type="checkbox"/> A.M. <input type="checkbox"/> P.M. <hr/> F E E S Filing and Examination Fee: \$ 2150. <sup>00</sup> Date Dec. 2, 1991 <hr/> R E C E I V E D Certificate Fee: \$ 250. <sup>00</sup> Date Apr. 15, 1993
S-123 Ag. Sci. Bldg. North University of Kentucky Lexington, KY 40546-0091		606-257-4772 FAX (606) 258-1952 AAA 19 Mar 1993	
6. GENUS AND SPECIES NAME	7. FAMILY NAME (Botanical)		
Triticum aestivum	Gramineae		
8. CROP KIND NAME (Common Name)		9. DATE OF DETERMINATION	
Wheat		May 1991	
10. IF THE APPLICANT NAMED IS NOT A "PERSON," GIVE FORM OF ORGANIZATION (Corporation, partnership, association, etc.)			
Land Grant University			
11. IF INCORPORATED, GIVE STATE OF INCORPORATION		12. DATE OF INCORPORATION	

13. NAME AND ADDRESS OF APPLICANT REPRESENTATIVE(S), IF ANY, TO SERVE IN THIS APPLICATION AND RECEIVE ALL PAPERS

David A. Van Sanford  
Department of Agronomy  
N-106 Ag. Sci. Bldg. North  
University of Kentucky  
Lexington, KY 40546-0091

PHONE (include area code): 606-257-5811

FAX See above AAA 19 Mar 1993

14. CHECK APPROPRIATE BOX FOR EACH ATTACHMENT SUBMITTED (Follow INSTRUCTIONS on reverse)

- a. ☒ Exhibit A, Origin and Breeding History of the Variety.  
 b. ☒ Exhibit B, Novelty Statement.  
 c. ☒ Exhibit C, Objective Description of Variety.  
 d. ☐ Exhibit D, Additional Description of Variety.  
 e. ☒ Exhibit E, Statement of the Basis of Applicant's Ownership.  
 f. ☒ Seed Sample (2,500 viable untreated seeds). Date Seed Sample mailed to Plant Variety Protection Office \_\_\_\_\_  
 g. ☒ Filing and Examination Fee (\$2,150) made payable to "Treasurer of the United States."

15. DOES THE APPLICANT(S) SPECIFY THAT SEED OF THIS VARIETY BE SOLD BY VARIETY NAME ONLY AS A CLASS OF CERTIFIED SEED? (See section 83(a) of the Plant Variety Protection Act.)

☒ YES (If "YES," answer items 16 and 17 below) ☐ NO (If "NO," skip to item 18 below)

16. DOES THE APPLICANT(S) SPECIFY THAT THIS VARIETY BE LIMITED AS TO NUMBER OF GENERATIONS?

☒ YES ☐ NO

17. IF "YES" TO ITEM 16, WHICH CLASSES OF PRODUCTION BEYOND BREEDER SEED?

☒ FOUNDATION ☐ REGISTERED ☒ CERTIFIED

18. DID THE APPLICANT(S) PREVIOUSLY FILE FOR PROTECTION OF THE VARIETY IN THE U.S.?

☐ YES (If "YES," through ☐ Plant Variety Protection Act ☐ Patent Act. Give date: \_\_\_\_\_)  
☒ NO

19. HAS THE VARIETY BEEN RELEASED, USED, OFFERED FOR SALE, OR MARKETING IN THE U.S. OR OTHER COUNTRIES?

☐ YES (If "YES," give names of countries and dates)  
☒ NO

20. The applicant(s) declare(s) that a viable sample of basic seeds of this variety will be furnished with the application and will be replenished upon request in accordance with such regulations as may be applicable.

The undersigned applicant(s) is (are) the owner(s) of this sexually reproduced novel plant variety, and believe(s) that the variety is distinct, uniform, and stable as required in section 41, and is entitled to protection under the provisions of section 42 of the Plant Variety Protection Act.

Applicant(s) is (are) informed that false representation herein can jeopardize protection and result in penalties.

SIGNATURE OF APPLICANT [Owner(s)]	CAPACITY OR TITLE	DATE
<i>James G. Boling</i>	Assoc. Director	11/13/91
SIGNATURE OF APPLICANT [Owner(s)]	CAPACITY OR TITLE	DATE
<i>Dean Miller</i>	Director	11/13/91

## REGISTRATION OF 'VERNE' WHEAT

'VERNE' WHEAT (*Triticum aestivum* L.) (Reg. no. CV-764, PI 547901) was developed by the Kentucky Agricultural Experiment Station (KAES) and released in 1990. Verne, tested as KY83-38, was released for its superiority in grain yield and test weight under conventional management. The cultivar was named for the late V.C. Finkner, small-grains breeder at the University of Kentucky for many years. Verne was derived from the cross 'Red Coat'/'Gaines'/5/'Taylor'/'Norin 10'/'Brevor'/3/Unknown parent/4/'Oasis'. An  $F_3$  bulk of this cross was obtained in 1981 from T.M. Starling, then small grains breeder at Virginia Polytechnic Institute and State University. Approximately 50 heads were harvested and planted as  $F_4$  headrows. A single  $F_4$ -derived progeny row was harvested in bulk and the population was headrowed and reselected through the  $F_8$  generation. Five  $F_8$  headrows were bulked on the basis of uniform plant type and increased in the  $F_9$  and  $F_{10}$  generations to produce  $F_{11}$  breeder seed.

Verne is a white-chaffed, awnletted soft red winter wheat with midlong spikes and large kernels. It is of midseason maturity, heading  $\approx 4$  d later than 'Coker 916', and 2 d earlier than 'Cardinal'. Verne is tall, equivalent in height to Cardinal, and will often lodge under high N rates ( $> 10 \text{ g m}^{-2}$ ). In several years of testing, lodging ratings of Verne and 'Saluda' have been similar. Verne is slightly more winterhardy than Saluda.

Verne has been tested in the Kentucky state variety trial since 1987, and in the Uniform Eastern Soft Red Winter Wheat Nursery during 1988-1990. Verne has shown consistent yield superiority to cultivars currently grown in Kentucky. In 4 yr of testing at seven locations, grain yield of Verne was 106% of Cardinal and 109% of Saluda. Test weight of Verne is high, being only slightly lower than that of Saluda. In several years of testing at the USDA Soft Wheat Quality Lab in Wooster, OH, Verne has had good milling quality (equivalent to 'Caldwell') and acceptable baking quality.

Verne possesses resistance to powdery mildew, caused by *Erysiphe graminis* DC. f.sp. *tritici* Em. Marchal, and leaf blotch caused by *Septoria tritica* Roberge in Desmaz., and is tolerant to glume blotch, caused by *Phaeosphaeria nodorum* (E. Müller) Hedjaroude, and leaf rust, caused by *Puccinia recondita* Roberge ex Desmaz. Verne is moderately susceptible to wheat spindle streak mosaic virus, and is susceptible to all biotypes of the Hessian fly, *Mayetiola destructor* (Say).

Seed classes of Verne will be breeder, foundation, and certified. Breeder and foundation seed will be maintained by the Foundation Seed Project, Dep. of Agronomy, University of Kentucky, Lexington, KY 40546-0091. Application for plant variety protection of Verne will be submitted.

D. A. VAN SANFORD,\* C. R. TUTT, C. S. SWANSON,  
AND W. L. PEARCE (1)

## References and Notes

1. Dep. of Agronomy, Univ. of Kentucky, Lexington, KY 40546-0091. The investigation reported in this paper (90-3-136) is in connection with a project of the Kentucky Agric. Exp. Stn. and is published with the approval of the director. Registration by CSSA. Accepted 28 Feb. 1991. \*Corresponding author.

**College of Agriculture**

AGRONOMY  
N-122 Agricultural Science Building North  
Lexington, Kentucky 40546-0091  
Office: (606) 257-7310  
Fax: (606) 258-1952

Post-It™ brand fax transmittal memo 7671 # of pages 1

To	Dr. A. Atchley	From	D.A. Van Sanford
Co.		Co.	Univ. Kentucky
Dept.	PVP Office	Phone	606-257-5811
Fax #	301-504-5291	Fax #	606-258-1952

March 19, 1993

**MEMORANDUM**

TO: Dr. A. Atchley  
PVP Office  
FAX 301-504-5291

FROM: Dave Van Sanford *Dave Van Sanford*  
Wheat Breeder

RE: PVP application for Verne wheat

The purpose of this memorandum is to verify that Verne wheat is a uniform and stable cultivar of wheat, and that it has been since we began testing it in our state variety trials in the F<sub>8</sub> generation. Verne is now in the F<sub>15</sub> generation; therefore it has been uniform and stable for seven generations.

*Confirmation  
copy to follow  
AAA  
19 Mar 1993*

## Exhibit B

## Novelty of Verne Wheat

Verne is a white-chaffed, awnletted soft red winter wheat with midlong spikes and large elliptical kernels. Awned variants may occur at a frequency of up to 1 in 1000 heads. Later maturing tall types with large dark green flag leaves may occur at a frequency of up to 1 in 1000 heads. Verne most closely resembles Cardinal in terms of plant height (see attachment), spike, and chaff characteristics and resistance to leaf rust (Puccinia recondita Rob. ex Desm. F. sp. tritici). Verne differs from Cardinal in that it reaches heading approximately 4 days earlier than Cardinal. Verne possesses moderate resistance to powdery mildew, (Erisphye graminis DC f. sp. tritici E. Marchal); resistance to this disease is absent in Cardinal. Verne also differs from Cardinal in seed characteristics. Verne has long elliptical kernels with a midlong brush, while Cardinal has midlong, oval kernels with a short brush.

U.S. DEPARTMENT OF AGRICULTURE  
AGRICULTURAL MARKETING SERVICE  
LIVESTOCK AND SEED DIVISION  
BELTSVILLE, MARYLAND 20705

EXHIBIT C  
(Wheat)

OBJECTIVE DESCRIPTION OF VARIETY  
WHEAT (TRITICUM SPP.)

INSTRUCTIONS: See Reverse.

NAME OF APPLICANT(S) Kentucky Agricultural Experiment Station	FOR OFFICIAL USE ONLY
ADDRESS (Street and No. or R.F.D. No., City, State, and ZIP Code) S-123 Ag. Sci. Bldg. North University of Kentucky Lexington, KY 40546-0091	PVPO NUMBER 9200030
	VARIETY NAME OR TEMPORARY DESIGNATION Verne

Place the appropriate number that describes the varietal character of this variety in the boxes below.  
Place a zero in first box (e.g.,  or ) when number is either 99 or less or 9 or less.

## 1. KIND:

1 = COMMON    2 = DURUM    3 = EMMER    4 = SPELT    5 = POLISH    6 = POULARD    7 = CLUB

## 2. TYPE:

1 = SPRING    2 = WINTER    3 = OTHER (Specify) \_\_\_\_\_  1 = SOFT    3 = OTHER (Specify) \_\_\_\_\_  
2 = HARD \_\_\_\_\_

1 = WHITE    2 = RED    3 = OTHER (Specify) \_\_\_\_\_

## 3. SEASON - NUMBER OF DAYS FROM EMERGENCE TO:

FIRST FLOWERING     LAST FLOWERING

## 4. MATURITY (50% Flowering):

NO. OF DAYS EARLIER THAN .....  1 = ARTHUR    2 = SCOUT    3 = CHRIS  
4 = LEMHI    5 = HUGAINES    6 = LEEDS

## 5. PLANT HEIGHT (From soil level to top of head):

CM. HIGH  
 CM. TALLER THAN .....   
 CM. SHORTER THAN .....  1 = ARTHUR    2 = SCOUT    3 = CHRIS  
4 = LEMHI    5 = HUGAINES    6 = LEEDS

## 6. PLANT COLOR AT BOOTING (See reverse):

1 = YELLOW GREEN    2 = GREEN    3 = BLUE GREEN

## 7. ANTHUR COLOR:

1 = YELLOW    2 = PURPLE

## 8. STEM:

Anthocyanin: 1 = ABSENT    2 = PRESENT     Vaxy bloom: 1 = ABSENT    2 = PRESENT  
 Hairiness of last internode of rachis: 1 = ABSENT    2 = PRESENT     Internodes: 1 = HOLLOW    2 = SOLID  
 NO. OF NODES (Originating from node above ground)     CM. INTERNODE LENGTH BETWEEN FLAG LEAF AND LEAF BELOW

## 9. AURICLES:

Anthocyanin: 1 = ABSENT    2 = PRESENT     Hairiness: 1 = ABSENT    2 = PRESENT

## 10. LEAF:

Flag leaf at booting stage: 1 = ERECT    2 = RECURVED     Flag leaf: 1 = NOT TWISTED    2 = TWISTED  
3 = OTHER (Specify) \_\_\_\_\_  
 Hairs of first leaf sheath: 1 = ABSENT    2 = PRESENT     Vaxy bloom of flag leaf sheath: 1 = ABSENT    2 = PRESENT  
 MM. LEAF WIDTH (First leaf below flag leaf)     CM. LEAF LENGTH (First leaf below flag leaf):

## 11. HEAD:

☐ Density: 1 = LAX 2 = DENSE
 ☐ Shape: 1 = TAPERING 2 = STRAP 3 = CLAVATE  
 4 = OTHER (Specify) \_\_\_\_\_

☐ Awnedness: 1 = AWNLESS 2 = APICALLY AWNLETED 3 = AWNLETED 4 = AWNEO

☐ Color at maturity: 1 = WHITE 2 = YELLOW 3 = PINK 4 = RED  
 5 = BROWN 6 = BLACK 7 = OTHER (Specify): \_\_\_\_\_

☐ 0 CM. LENGTH
 ☐ 0 MM. WIDTH

## 12. GLUMES AT MATURITY:

☐ Length: 1 = SHORT (CA. 7 mm.) 2 = MEDIUM (CA. 8 mm.) 3 = LONG (CA. 9 mm.)
 ☐ Width: 1 = NARROW (CA. 3 mm.) 2 = MEDIUM (CA. 3.5 mm.) 3 = WIDE (CA. 4 mm.)

☐ Shoulder shape: 1 = WANTING 2 = OBLIQUE 3 = ROUNDED 4 = SQUARE 5 = ELEVATED 6 = APICULATE
 ☐ Beak: 1 = OBTUSE 2 = ACUTE 3 = ACUMINATE

## 13. COLEOPTILE COLOR:

☐ 1 = WHITE 2 = RED 3 = PURPLE

## 14. SEEDLING ANTHOCYANIN:

☐ 1 = ABSENT 2 = PRESENT

## 15. JUVENILE PLANT GROWTH HABIT:

☐ 1 = PROSTRATE 2 = SEMI-ERECT 3 = ERECT

## 16. SEED:

☐ Shape: 1 = OVATE 2 = OVAL 3 = ELLIPTICAL
 ☐ Check: 1 = ROUNDED 2 = ANGULAR

☐ Brush: 1 = SHORT 2 = MEDIUM 3 = LONG
 ☐ Brush: 1 = NOT COLLARED 2 = COLLARED

☐ Phenol reaction (See instructions): 1 = IVORY 2 = FAWN 3 = LT. BROWN 4 = BROWN 5 = BLACK

☐ Color: 1 = WHITE 2 = AMBER 3 = RED 4 = PURPLE 5 = OTHER (Specify) \_\_\_\_\_

☐ 8 MM. LENGTH
 ☐ 4 MM. WIDTH
 ☐ 9 GM. PER 1000 SEEDS

## 17. SEED CREASE:

☐ Width: 1 = 60% OR LESS OF KERNEL 'WINOKA' 2 = 80% OR LESS OF KERNEL 'CHRIS' 3 = NEARLY AS WIDE AS KERNEL 'LEMHU'
 ☐ Depth: 1 = 20% OR LESS OF KERNEL 'SCOUT' 2 = 35% OR LESS OF KERNEL 'CHRIS' 3 = 50% OR LESS OF KERNEL 'LEMHU'

## 18. DISEASE: (0 = Not Tested, 1 = Susceptible, 2 = Resistant)

☐ STEM RUST (Race)
 ☐ LEAF RUST (Race)
 ☐ STRIPE RUST (Race)
 ☐ LOOSE SMUT

☐ POWDERY MILDEW
 ☐ BUNT
 ☐ OTHER (Specify) Septoria diseases

## 19. INSECT: (0 = Not Tested, 1 = Susceptible, 2 = Resistant)

☐ SAWFLY
 ☐ APHID (Bydv.)
 ☐ GREEN BUG
 ☐ CEREAL LEAF BEETLE

☐ OTHER (Specify) \_\_\_\_\_
 HESSIAN FLY RACES:
 ☐ GP
 ☐ A
 ☐ B
 ☐ C
 ☐ D
 ☐ E
 ☐ F
 ☐ G

## 20. INDICATE WHICH VARIETY MOST CLOSELY RESEMBLES THAT SUBMITTED:

CHARACTER	NAME OF VARIETY	CHARACTER	NAME OF VARIETY
Plant tillering	Cardinal	Seed size	Wakefield
Leaf size	Cardinal	Seed shape	Wakefield
Leaf color	Cardinal	Coleoptile elongation	Cardinal
Leaf carriage	Cardinal	Seedling pigmentation	Cardinal

## INSTRUCTIONS

GENERAL: The following publications may be used as a reference aid for the standardization of terms and procedures for completing this form:

- (a) L.W. Briggie and L. P. Reitz, 1963, Classification of Triticum Species and Wheat Varieties Grown in the United States, Technical Bulletin 1278, United States Department of Agriculture.
- (b) W.E. Walls, 1965, A Standardized Phenol Method for Testing Wheat Seeds for Varietal Purity, contribution No. 28 to the handbook of seed testing prepared by the Association of Official Seed Analysts. (See attachment.)

Table 3B. -- Average Performance of Wheat Varieties Tested in 1989-1991.

VARIETY	YIELD (BU/A)	TEST WEIGHT (LB/BU)	LODGING (%)	PLANT HEIGHT (IN)	SURVIVAL (%)	HEADING DATE
WAKEFIELD	53.1	53.6	9.6	36.7	88.7	07MAY
VERNE	52.8	53.5	10.8	37.6	92.1	05MAY
MADISON	52.3	53.5	12.2	34.5	91.1	02MAY
2548	50.7	53.0	4.4	32.3	90.8	05MAY
CLARK	49.5	52.5	6.0	34.8	92.7	01MAY
2555	48.7	51.7	7.4	34.6	91.8	03MAY
HOWELL	47.8	56.5	4.7	38.8	89.8	09MAY
WHEELER	47.5	55.8	10.4	38.6	90.3	07MAY
CARDINAL	47.5	51.6	4.8	37.8	88.6	09MAY
COKER 833	47.3	54.3	19.5	36.5	91.3	09MAY
COKER 9733	46.4	55.1	15.8	38.6	90.1	06MAY
FFR 544W	46.3	51.9	5.0	34.4	92.0	04MAY
TYLER	45.5	52.4	5.8	38.7	90.4	08MAY
BECKER	44.4	50.7	4.5	33.1	92.3	07MAY
SALUDA	44.3	53.2	11.5	32.0	87.4	06MAY
MASSEY	44.1	54.4	15.1	37.0	89.0	04MAY
DYNASTY	43.4	51.9	4.2	36.4	91.4	06MAY
COKER 9877	43.1	52.8	11.7	36.4	86.3	11MAY
COKER 916	42.3	52.3	9.5	32.6	87.7	02MAY
SCOTTY	41.9	53.3	8.0	35.4	87.6	07MAY
COMPTON	41.3	54.8	10.4	34.5	88.9	07MAY
ARTHUR	39.6	55.0	6.1	37.1	85.5	04MAY
DOUBLECROP	39.0	55.0	8.0	36.2	85.3	29APR
CALDWELL	38.9	51.4	3.2	35.7	86.2	07MAY



## Exhibit E

The basis of ownership is that the Kentucky Agricultural Experiment Station is the employer of the wheat breeder D. A. Van Sanford who participated in the development, testing, and increase of this variety.